Techno-Tyranny: How The US National Security State Is Using Coronavirus To Fulfill An Orwellian Vision

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Last year, a government commission called for the US to adopt an AI-driven mass surveillance system far beyond that used in any other country in order to ensure American hegemony in artificial intelligence. Now, many of the "obstacles" they had cited as preventing its implementation are rapidly being removed under the guise of combating the coronavirus crisis.

Last year, a U.S. government body dedicated to examining how artificial intelligence can "address the national security and defense needs of the United States" discussed in detail the "structural" changes that the American economy and society must undergo in order to ensure a technological advantage over China, according to a recent document acquired through a FOIA request. This document suggests that the U.S. follow China's lead and even surpass them in many aspects related to AI-driven technologies, particularly their use of mass surveillance. This perspective clearly clashes with the public rhetoric of prominent U.S. government officials and politicians on China, who have labeled the Chinese government's technology investments and export of its surveillance systems and other technologies as a major "threat" to Americans' "way of life."

In addition, many of the steps for the implementation of such a program in the U.S., as laid out in this newly available document, are currently being promoted and implemented as part of the government's response to the current coronavirus (Covid-19) crisis. This likely due to the fact that many members of this same body have considerable overlap with the taskforces and advisors currently guiding the government's plans to "re-open the economy" and efforts to use technology to respond to the current crisis.

The FOIA document, obtained by the Electronic Privacy Information Center (EPIC), was produced by a little-known U.S. government organization called the National Security Commission on Artificial Intelligence (NSCAI). It was created by the 2018 National Defense Authorization Act (NDAA) and its official purpose is "to consider the methods and means necessary to advance the development of artificial intelligence (AI), machine learning, and associated technologies to comprehensively address the national security and defense needs of the United States."

The NSCAI is a key part of the government's response to what is often referred to as the coming "fourth industrial revolution," which has been described as "a revolution characterized by discontinuous technological development in areas like artificial intelligence (AI), big data, fifth-generation telecommunications networking (5G), nanotechnology and biotechnology, robotics, the Internet of Things (IoT), and quantum computing."

However, their main focus is ensuring that "the United States … **maintain a technological advantage** in artificial intelligence, machine learning, and other associated technologies related to national security and defense." The vice-chair of NSCAI, Robert Work – former Deputy Secretary of Defense and senior fellow at the hawkish Center for a New American Security (CNAS), described the

commission's purpose as determining "how the U.S. national security apparatus should approach artificial intelligence, including a focus on **how the government can work with industry to compete with China's 'civil-military fusion' concept**."

The recently released NSCAI document is a May 2019 presentation entitled "Chinese Tech Landscape Overview." Throughout the presentation, the NSCAI promotes the overhaul of the U.S. economy and way of life as necessary for allowing the U.S. to ensure it holds a considerable technological advantage over China, as losing this advantage is currently deemed a major "national security" issue by the U.S. national security apparatus. This concern about maintaining a technological advantage can be seen in several other U.S. military documents and think tank reports, several of which have warned that the U.S.' technological advantage is quickly eroding.

The U.S. government and establishment media outlets often blame alleged Chinese espionage or the Chinese government's more explicit partnerships with private technology companies in support of their claim that the U.S. is losing this advantage over China. For instance, Chris Darby, the current CEO of the CIA's In-Q-Tel, who is also on the NSCAI, told *CBS News* last year that China is the U.S.' main competitor in terms of technology and that U.S. privacy laws were hampering the U.S.' capacity to counter China in this regard, stating that:

> *"[D]ata is the new oil. And China is just awash with data. And **they don't have the same restraints** that we do around collecting it and using it, because of the privacy difference between our countries. This notion that they have the largest labeled data set in the world is going to be **a huge strength for them**."*

In another example, Michael Dempsey – former acting Director of National Intelligence and currently a government-funded fellow at the Council on Foreign Relations – argued in *The Hill* that:

> *"It's quite clear, though, that China is **determined to erase** our technological advantage, and is committing hundreds of billions of dollars to this effort. In particular, China is determined to be a world leader in such areas as artificial intelligence, high performance computing, and synthetic biology. These are the industries that will shape life on the planet and **the military balance of power for the next several decades**."*

In fact, the national security apparatus of the United States is so concerned about losing a technological edge over China that the Pentagon recently decided to join forces directly with the U.S. intelligence community in order "to get in front of Chinese advances in artificial intelligence." This union resulted in the creation of the Joint Artificial Intelligence Center (JAIC), which ties together "the military's efforts with those of the Intelligence Community, allowing them to combine efforts **in a breakneck push to move government's AI initiatives forward**." It also coordinates with other government agencies, industry, academics, and U.S. allies. Robert Work, who subsequently became the NSCAI vice-chair, said at the time that JAIC's creation was a "welcome first step in response to Chinese, and to a lesser extent, Russian, plans to dominate these technologies."

Similar concerns about "losing" technological advantage to China have also been voiced by the NSCAI chairman, Eric Schmidt, the former head of Alphabet – Google's parent company, who argued in February in the *New York Times* that

Silicon Valley could soon lose "the technology wars" to China if the U.S. government doesn't take action. Thus, the three main groups represented within the NSCAI – the intelligence community, the Pentagon and Silicon Valley – all view China's advancements in AI as a major national security threat (and in Silicon Valley's case, threat to their bottom lines and market shares) that must be tackled quickly.

Targeting China's "adoption advantage"

In the May 2019 "Chinese Tech Landscape Overview" presentation, the NSCAI discusses that, while the U.S. still leads in the "creation" stage of AI and related technologies, it lags behind China in the "adoption" stage due to "structural factors." It says that "creation", followed by "adoption" and "iteration" are the three phases of the "life cycle of new tech" and asserts that failing to dominate in the "adoption" stage will allow China to "leapfrog" the U.S. and dominate AI for the foreseeable future.

The presentation also argues that, in order to "leapfrog" competitors in emerging markets, what is needed is not "individual brilliance" but instead specific "structural conditions that exist within certain markets." It cites several case studies where China is considered to be "leapfrogging" the U.S. due to major differences in these "structural factors." Thus, the insinuation of the document (though not directly stated) is that the U.S. must alter the "structural factors" that are currently responsible for its lagging behind China in the "adoption" phase of AI-driven technologies.

Open Questions for the Future of Technology
In which other "tech-enabled" verticals will China's adoption advantage allow it to leapfrog the US?
My predictions: AI medical diagnosis, smart cities
How does the US defend its advantage in core creation?
For verticals where Chinese companies are world leaders expand beyond Chinese borders?
What does it mean for Chinese tech giants to have control of pieces of critical digital infrastructure in other countries? (e.g. Indian financial system)
Who makes decisions? To what extent can they stand up to the government?
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Chief among the troublesome "structural factors" highlighted in this presentation are so-called "legacy systems" that are common in the U.S. but much less so in China. The NSCAI document states that examples of "legacy systems" include a financial system that still utilizes cash and card payments, individual car ownership and even receiving medical attention from a human doctor. It states that, while these "legacy systems" in the US are "good enough," too many "good enough" systems "hinder the adoption of new things," specifically AI-driven systems.

Another structural factor deemed by the NSCAI to be an obstacle to the U.S.' ability to maintain a technological advantage over China is the "scale of the consumer market," arguing that "extreme urban density = on-demand service adoption." In other words, extreme urbanization results in more people using online or mobile-based "on-demand" services, ranging from ride-sharing to

online shopping. It also cites the use of mass surveillance on China's "huge population base" is an example of how China's "scale of consumer market" advantage allowing "China to leap ahead" in the fields of related technologies, like facial recognition.

Creation, Adoption, Iteration.
The US leads in the "Creation" stage. Core technology and new user paradigms are still largely invented here.
But "Adoption" happens far more quickly in China due to structural factors. The most significant of these are...
1. Lack of legacy systems e.g. lack of credit cards = mobile payment
2. Scale of consumer market e.g. extreme urban density = on-demand service adoption
3. Explicit government support and involvement e.g. facial recognition deployment
Iteration: What happens when you have a huge highly receptive user-base to iterate on, and the investment that justifies? Eventually, the resultant experience has evolved so much that it is nearly unrecognizable...
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In addition to the alleged shortcomings of the U.S.' "legacy systems" and lack of "extreme urban density," the NSCAI also calls for more "explicit government support and involvement" as a means to speed up the adoption of these systems in the U.S. This includes the government lending its stores of data on civilians to train AI, specifically citing facial recognition databases, and mandating that cities be "re-architected around AVs [autonomous vehicles]," among others. Other examples given include the government investing large amounts of money in AI start-ups and adding tech behemoths to a national, public-private AI taskforce focused on smart city-implementation (among other things).

With regards to the latter, the document says "this level of public-private cooperation" in China is "outwardly embraced" by the parties involved, with this "serving as a stark contrast to the controversy around Silicon Valley selling to the U.S. government." Examples of such controversy, from the NSCAI's perspective, likely include Google employees petitioning to end the Google-Pentagon "Project Maven," which uses Google's AI software to analyze footage captured by drones. Google eventually chose not to renew its Maven contract as a result of the controversy, even though top Google executives viewed the project as a "golden opportunity" to collaborate more closely with the military and intelligence communities.

The document also defines another aspect of government support as the "clearing of regulatory barriers." This term is used in the document specifically with respect to U.S. privacy laws, despite the fact that the U.S. national security state has long violated these laws with near complete impunity. However, the document seems to suggest that privacy laws in the U.S. should be altered so that what the U.S. government has done "in secret" with private citizen data can be done more openly and more extensively. The NSCAI document also discusses the removal of "regulatory barriers" in order to speed up the adoption of self-driving cars, even though autonomous driving technology has resulted in several deadly and horrific car accidents and presents other safety concerns.

Facial recognition expands beyond surveillance
1. Creation: Breakthroughs in using machine learning for image recognition initially occurred in the US.
2. Adoption: Surveillance use cases (Clearing of regulatory barriers) and enormous government stores of data (Explicit government support) on a huge population base (Scale of consumer market) have allowed China to leap ahead.
3. Iteration: Facial recognition is being deployed all across China (e.g. at office buildings, making payments).
a. There is a very real possibility that the investment surveillance has justified could allow China to leap ahead in image recognition and biometrics.
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Also discussed is how China's "adoption advantage" will "allow it to leapfrog the U.S." in several new fields, including "AI medical diagnosis" and "smart cities." It then asserts that "the future will be decided at the intersection of private enterprise and policy leaders between China and the U.S." If this coordination over the global AI market does not occur, the document warns that "we [the U.S.] risk being left out of the discussions where norms around AI are set for the rest of our lifetimes."

The presentation also dwells considerably on how "the main battleground [in technology] are not the domestic Chinese and US markets," but what it refers to as the NBU (next billion users) markets, where it states that "Chinese players will aggressively challenge Silicon Valley." In order to challenge them more successfully, the presentation argues that, "just like we [view] the market of teenagers as a harbinger for new trends, we should look at China."

The document also expresses concerns about China exporting AI more extensively and intensively than the U.S., saying that China is "already crossing borders" by helping to build facial databases in Zimbabwe and selling image recognition and smart city systems to Malaysia. If allowed to become "the unambiguous leader in AI," it says that "China could end up writing much of the rulebook of international norms around the deployment of AI" and that it would "broaden China's sphere of influence amongst an international community that increasingly looks to the pragmatic authoritarianism of China and Singapore as an alternative to Western liberal democracy."

What will replace the US' "legacy systems"?

Given that the document makes it quite clear that "legacy systems" in the U.S. are impeding its ability to prevent China from "leapfrogging" ahead in AI and then dominating it for the foreseeable future, it is also important to examine what the document suggests should replace these "legacy systems" in the U.S.

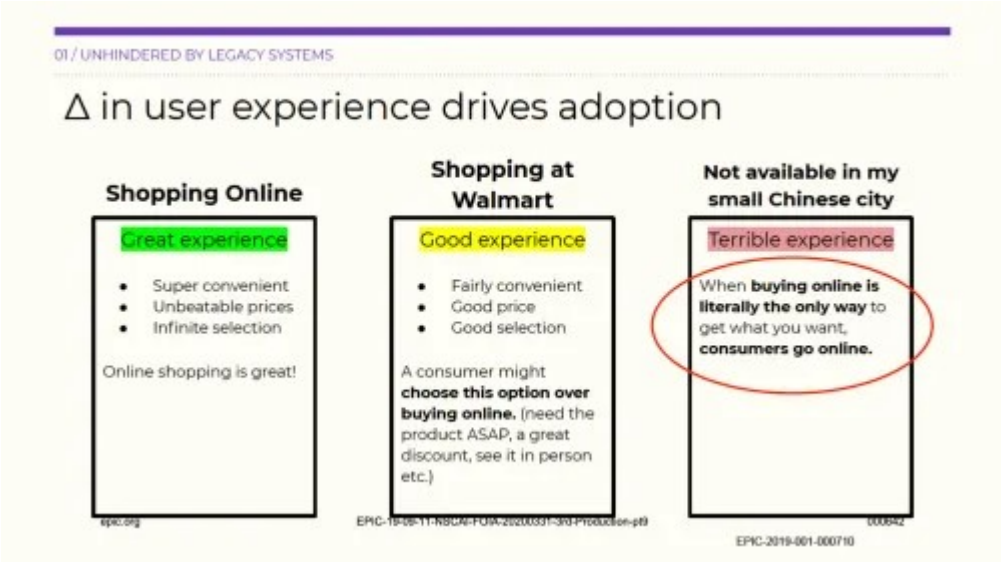
As previously mentioned, one "legacy system" cited early on in the presentation is the main means of payment for most Americans, cash and credit/debit cards. The presentation asserts, in contrast to these "legacy systems" that the best and most advanced system is moving entirely to smartphone-based digital wallets.

It notes specifically the main mobile wallet provider in India, PayTM, is majority owned by Chinese companies. It quotes an article, which states that "a big break came [in 2016] when India canceled 86% of currency in circulation in an effort

to cut corruption and bring more people into the tax net by forcing them to use less cash." At the time, claims that India's 2016 "currency reform" would be used as a stepping stone towards a cashless society were dismissed by some as "conspiracy theory." However, last year, a committee convened by India's central bank (and led by an Indian tech oligarch who also created India's massive civilian biometric database) resulted in the Indian government's "Cashless India" program.

Regarding India's 2016 "currency reform," the NSCAI document then asserts that "**this would be unfathomable in the West.** And unsurprisingly, when 86% of the cash got cancelled and nobody had a credit card, mobile wallets in India exploded, laying the groundwork for **a far more advanced payments ecosystem in India than the US.**" However, it has become increasingly less unfathomable in light of the current coronavirus crisis, which has seen efforts to reduce the amount of cash used because paper bills may carry the virus as well as efforts to introduce a Federal Reserve-backed "digital dollar."

In addition, the NSCAI document from last May calls for the end of in-person shopping and promotes moving towards all shopping being performed online. It argues that "American companies have a lot to gain by adopting ideas from Chinese companies" by shifting towards exclusive e-commerce purchasing options. It states that only shopping online provides a "great experience" and also adds that "**when buying online is literally the only way to get what you want, consumers go online**."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Δ in user experience drives adoption
Shopping Online
Great experience
Super convenient
Unbeatable prices
Infinite selection
Online shopping is great!
Shopping at Walmart
Good experience
Fairly convenient
Good price
Good selection
A consumer might choose this option over buying online. (need the product ASAP, a great discount, see it in person etc.)
Not available in my small Chinese city
Terrible experience
When buying online is literally the only way to get what you want, consumers go online.
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Another "legacy system" that the NSCAI seeks to overhaul is car ownership, as it promotes autonomous, or self-driving vehicles and further asserts that "fleet ownership > individual ownership." It specifically points to a need for "a centralized ride-sharing network," which it says "is needed to coordinate cars to achieve near 100% utilization rates." However, it warns against ride-sharing networks that "need a human operator paired with each vehicle" and also asserts that "fleet ownership makes more sense" than individual car ownership. It also specifically calls for these fleets to not only be composed of self-driving cars, but electric cars and cites reports that China "has the world's most aggressive electric vehicle goals….and **seek[s] the lead** in an emerging industry."

The document states that China leads in ride-sharing today even though ride-sharing was pioneered first in the U.S. It asserts once again that the U.S. "legacy system" of individual car ownership and lack of "extreme urban density" are responsible for China's dominance in this area. It also predicts that China will

"achieve mass autonomous [vehicle] adoption before the U.S.," largely because "the lack of mass car ownership [in China] leads to far more consumer receptiveness to AVs [autonomous vehicles]." It then notes that "earlier mass adoption leads to a virtuous cycle that allows Chinese core self-driving tech to accelerate beyond [its] Western counterparts."

In addition to their vision for a future financial system and future self-driving transport system, the NSCAI has a similarly dystopian vision for surveillance. The document calls mass surveillance "one of the 'first-and-best customers' for AI" and "a killer application for deep learning." It also states that "having streets carpeted with cameras is good infrastructure."

State Datasets: Surveillance = Smart Cities

- Alibaba has been selected to the **National AI Team** for smart city applications. **It turns out that having streets carpeted with cameras is good infrastructure for smart cities as well.**
  - Close collaboration with the government allows Alibaba to gather information like car and foot traffic data based on surveillance cameras.
  - Government data mixed with Alibaba's own data and expertise in computing is a potent combination.
- Alibaba's "City Brain" product is being used in pilot cities like their home city of Hangzhou to optimize the timing of red lights for traffic flow and ambulances, and to redirect traffic if certain areas are under construction.
- It's purportedly reduced traffic time by 15.3% and cut ambulance arrival time by 50% in pilot areas.
- Soon, municipalities will be able to make every infrastructure decision, from filling potholes to building subway lines, based on complete data of how every person is moving through the city in real time.

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It then discusses how "an entire generation of AI unicorn" companies are "collecting the bulk of their early revenue from government security contracts" and praises the use of AI in facilitating policing activities. For instance, it lauds reports that "police are making convictions based on phone calls monitored with iFlyTek's voice-recognition technology" and that "police departments are using [AI] facial recognition tech to assist in everything from catching traffic law violators to resolving murder cases."

On the point of facial recognition technology specifically, the NSCAI document asserts that China has "leapt ahead" of the US on facial recognition, even though "breakthroughs in using machine learning for image recognition initially occurred in the US." It claims that China's advantage in this instance is because they have government-implemented mass surveillance ("clearing of regulatory barriers"), enormous government-provided stores of data ("explicit government support") combined with private sector databases on a huge population base ("scale of consumer market"). As a consequence of this, the NSCAI argues, China is also set to leap ahead of the U.S. in both image/facial recognition and biometrics.

The document also points to another glaring difference between the U.S. and its rival, stating that: "In the press and politics of America and Europe, Al is painted as something to be feared that is eroding privacy and stealing jobs. Conversely, China views it as both a tool for solving major macroeconomic challenges in order to sustain their economic miracle, and **an opportunity to take technological leadership on the global stage**."

The NSCAI document also touches on the area of healthcare, calling for the implementation of a system that seems to be becoming reality thanks to the current coronavirus crisis. In discussing the use of AI in healthcare (almost a

year before the current crisis began), it states that "China could lead the world in this sector" and "this could lead to them exporting their tech and setting international norms." One reason for this is also that China has "far too few doctors for the population" and calls having enough doctors for in-person visits a "legacy system." It also cited U.S. regulatory measures such as "HIPPA compliance and FDA approval" as obstacles that don't constrain Chinese authorities.

More troubling, it argues that "the potential impact of government supplied data is even more significant in biology and healthcare," and says it is likely that "the Chinese government [will] require every single citizen to have their DNA sequenced and stored in government databases, something nearly impossible to imagine in places as privacy conscious as the U.S. and Europe." It continues by saying that "the Chinese apparatus is well-equipped to take advantage" and calls these civilian DNA databases a "logical next step."

State Datasets: Biotech and Healthcare

- The potential impact of government supplied data is even more significant in biology and healthcare.
  - In the near future, it wouldn't be a surprise to see the Chinese government require every single citizen to have their DNA sequenced and stored in government databases, something nearly impossible to imagine in places as privacy conscious as the US and Europe.
- The Chinese apparatus is well-equipped to take advantage. Tencent has already been named to the **National AI Team** for medical diagnosis using computer vision and a logical next step would be medical advancements utilizing government DNA data.

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Who are the NSCAI?

Given the sweeping changes to the U.S. that the NSCAI promoted in this presentation last May, it becomes important to examine who makes up the commission and to consider their influence over U.S. policy on these matters, particularly during the current crisis. As previously mentioned, the chairman of the NSCAI is Eric Schmidt, the former head of Alphabet (Google's parent company) who has also invested heavily in Israeli intelligence-linked tech companies including the controversial start-up "incubator" Team8. In addition, the committee's vice-chair is Robert Work, is not only a former top Pentagon official, but is currently working with the think tank CNAS, which is run by John McCain's long-time foreign policy adviser and Joe Biden's former national security adviser.

Other members of the NSCAI are as follows:

- Safra Catz, CEO of Oracle, with close ties to Trump's top donor Sheldon Adelson
- Steve Chien, supervisor of the Artificial Intelligence Group at Caltech's Jet Propulsion Lab
- Mignon Clyburn, Open Society Foundation fellow and former FCC commissioner
- Chris Darby, CEO of In-Q-Tel (CIA's venture capital arm)
- Ken Ford, CEO of the Florida Institute for Human and Machine Cognition

- Jose-Marie Griffiths, president of Dakota State University and former National Science Board member
- Eric Horvitz, director of Microsoft Research Labs
- Andy Jassy, CEO of Amazon Web Services (CIA contractor)
- Gilman Louie, partner at Alsop Louie Partners and former CEO of In-Q-Tel
- William Mark, director of SRI International and former Lockheed Martin director
- Jason Matheny, director of the Center for Security and Emerging Technology, former Assistant director of National Intelligence and former director of IARPA (Intelligence Advanced Research Project Agency)
- Katharina McFarland, consultant at Cypress International and former Assistant Secretary of Defense for Acquisition
- Andrew Moore, head of Google Cloud AI

As can be seen in the list above, there is a considerable amount of overlap between the NSCAI and the companies currently advising the White House on "re-opening" the economy (Microsoft, Amazon, Google, Lockheed Martin, Oracle) and one NSCAI member, Oracle's Safra Katz, is on the White House's "economic revival" taskforce. Also, there is also overlap between the NSCAI and the companies that are intimately involved in the implementation of the "contact tracing" "coronavirus surveillance system," a mass surveillance system promoted by the Jared Kushner-led, private-sector coronavirus task force. That surveillance system is set to be constructed by companies with deep ties to Google and the U.S. national security state, and both Google and Apple, who create the operating systems for the vast majority of smartphones used in the U.S., have said they will now build that surveillance system directly into their smartphone operating systems.

Also notable is the fact that In-Q-Tel and the U.S. intelligence community has considerable representation on the NSCAI and that they also boast close ties with Google, Palantir and other Silicon Valley giants, having been early investors in those companies. Both Google and Palantir, as well as Amazon (also on the NSCAI) are also major contractors for U.S. intelligence agencies. In-Q-Tel's involvement on the NSCAI is also significant because they have been heavily promoting mass surveillance of consumer electronic devices for use in pandemics for the past several years. Much of that push has come from In-Q-Tel's current Executive Vice President Tara O'Toole, who was previously the director of the Johns Hopkins Center for Health Security and also co-authored several controversial biowarfare/pandemic simulations, such as Dark Winter.

In addition, since at least January, the U.S. intelligence community and the Pentagon have been at the forefront of developing the U.S. government's still-classified "9/11-style" response plans for the coronavirus crisis, alongside the National Security Council. Few news organizations have noted that these classified response plans, which are set to be triggered if and when the U.S. reaches a certain number of coronavirus cases, has been created largely by elements of the national security state (i.e. the NSC, Pentagon, and intelligence), as opposed to civilian agencies or those focused on public health issues.

Furthermore, it has been reported that the U.S. intelligence community as well as U.S. military intelligence knew by at least January (though recent reports have said as early as last November) that the coronavirus crisis would reach "pandemic proportions" by March. The American public were not warned, but elite members of the business and political classes were apparently informed, given the record numbers of CEO resignations in January and several high-profile insider trading allegations that preceded the current crisis by a matter of

weeks.

Perhaps even more disconcerting is the added fact that the U.S. government not only participated in the eerily prescient pandemic simulation last October known as Event 201, it also led a series of pandemic response simulations last year. Crimson Contagion was a series of four simulations that involved 19 U.S. federal agencies, including intelligence and the military, as well as 12 different states and a host of private sector companies that simulated a devastating pandemic influenza outbreak that had originated in China. It was led by the current HHS Assistant Secretary for Preparedness and Response, Robert Kadlec, who is a former lobbyist for military and intelligence contractors and a Bush-era homeland security "bioterrorism" advisor.

In addition, both Kadlec and the Johns Hopkins Center for Health Security, which was intimately involved in Event 201, have direct ties to the controversial June 2001 biowarfare exercise "Dark Winter," which predicted the 2001 anthrax attacks that transpired just months later in disturbing ways. Though efforts by media and government were made to blame the anthrax attacks on a foreign source, the anthrax was later found to have originated at a U.S. bioweapons lab and the FBI investigation into the case has been widely regarded as a cover-up, including by the FBI's once-lead investigator on that case.

Given the above, it is worth asking if those who share the NSCAI's vision saw the coronavirus pandemic early on as an opportunity to make the "structural changes" it had deemed essential to countering China's lead in the mass adoption of AI-driven technologies, especially considering that many of the changes in the May 2019 document are now quickly taking place under the guise of combatting the coronavirus crisis.

The NSCAI's vision takes shape

Though the May 2019 NSCAI document was authored nearly a year ago, the coronavirus crisis has resulted in the implementation of many of the changes and the removal of many of the "structural" obstacles that the commission argued needed to be drastically altered in order to ensure a technological advantage over China in the field of AI. The aforementioned move away from cash, which is taking place not just in the U.S. but internationally, is just one example of many.

For instance, earlier this week *CNN* reported that grocery stores are now

considering banning in-person shopping and that the U.S. Department of Labor has recommended that retailers nationwide start "'using a drive-through window or offering curbside pick-up' to protect workers for exposure to coronavirus." In addition, last week, the state of Florida approved an online-purchase plan for low income families using the Supplemental Nutrition Assistance Program (SNAP). Other reports have argued that social distancing inside grocery stores is ineffective and endangering people's lives. As previously mentioned, the May 2019 NSCAI document argues that moving away from in-person shopping is necessary to mitigate China's "adoption advantage" and also argued that "when buying online is **literally the only way to get what you want**, consumers go online."

Reports have also argued that these changes in shopping will last far beyond coronavirus, such as an article by *Business Insider* entitled "The coronavirus pandemic is pushing more people online and will forever change how Americans shop for groceries, experts say." Those cited in the piece argue that this shift away from in-person shopping will be "permanent" and also states that "More people are trying these services than otherwise would have **without this catalyst** and gives online players **a greater chance to acquire and keep a new customer base**." A similar article in *Yahoo! News* argues that, thanks to the current crisis, "our dependence on online shopping will only rise because no one wants to catch a virus at a shop."

In addition, the push towards the mass use of self-driving cars has also gotten a boost thanks to coronavirus, with driverless cars now making on-demand deliveries in California. Two companies, one Chinese-owned and the other backed by Japan's SoftBank, have since been approved to have their self-driving cars used on California roads and that approval was expedited due to the coronavirus crisis. The CPO of Nuro Inc., the SoftBank-backed company, was quoted in *Bloomberg* as saying that "**The Covid-19 pandemic has expedited the public need** for contactless delivery services. Our R2 fleet is custom-designed **to change the very nature of driving and the movement of goods** by allowing people to remain safely at home while their groceries, medicines, and packages are brought to them." Notably, the May 2019 NSCAI document references the inter-connected web of SoftBank-backed companies, particularly those backed by its largely Saudi-funded "Vision Fund," as forming "the connective tissue for a global federation of tech companies" set to dominate AI.

California isn't the only state to start using self-driving cars, as the Mayo Clinic of Florida is now also using them. "Using artificial intelligence enables us to protect staff from exposure to this contagious virus by using cutting-edge autonomous vehicle technology and frees up staff time that can be dedicated to direct treatment and care for patients," Kent Thielen, M.D., CEO of Mayo Clinic in Florida stated in a recent press release cited by *Mic*.

Like the changes to in-person shopping in the age of coronavirus, other reports assert that self-driving vehicles are here to stay. One report published by *Mashable* is entitled "It took a coronavirus outbreak for self-driving cars to become more appealing," and opens by stating "Suddenly, a future full of self-driving cars isn't just a sci-fi pipe dream. What used to be considered a scary, uncertain technology for many Americans looks more like an effective tool to protect ourselves from a fast-spreading, infectious disease." It further argues that this is hardly a "fleeting shift" in driving habits and one tech CEO cited in the piece, Anuja Sonalker of Steer Tech, claims that "There has been a distinct warming up to human-less, contactless technology. **Humans are biohazards, machines are not**."

Another focus of the NSCAI presentation, AI medicine, has also seen its star rise in recent weeks. For instance, several reports have touted how AI-driven drug discovery platforms have been able to identify potential treatments for coronavirus. Microsoft, whose research lab director is on the NSCAI, recently put $20 million into its "AI for health" program to speed up the use of AI in analyzing coronavirus data. In addition, "telemedicine"– a form of remote medical care – has also become widely adopted due to the coronavirus crisis.

Several other AI-driven technologies have similarly become more widely adopted thanks to coronavirus, including the use of mass surveillance for "contact tracing" as well as facial recognition technology and biometrics. A recent *Wall Street Journal* report stated that the government is seriously considering both contact tracing via phone geolocation data and facial recognition technology in order to track those who *might* have coronavirus. In addition, private businesses – like grocery stores and restaurants – are using sensors and facial recognition to see how many people and which people are entering their stores.

As far as biometrics go, university researchers are now working to determine if "smartphones and biometric wearables already contain the data we need to know if we have become infected with the novel coronavirus." Those efforts seek to detect coronavirus infections early by analyzing "sleep schedules, oxygen levels, activity levels and heart rate" based on smartphone apps like FitBit and smartwatches. In countries outside the U.S., biometric IDs are being touted as a way to track those who have and lack immunity to coronavirus.

In addition, one report in *The Edge* argued that the current crisis is changing what types of biometrics should be used, asserting that a shift towards thermal scanning and facial recognition is necessary:

> *"At this critical juncture of the crisis, any integrated facial recognition and thermal scanning solution* ***must be implemented easily, rapidly and in a cost-effective manner****. Workers returning to offices or factories must not have to scramble to learn a new process or fumble with declaration forms. They must feel safe and healthy for them to work productively.* ***They just have to look at the camera and smile.*** *Cameras and thermal scanners, supported by a cloud-based solution and the appropriate software protocols, will do the rest."*

Also benefiting from the coronavirus crisis is the concept of "smart cities," with *Forbes* recently writing that "Smart cities can help us combat the coronavirus pandemic." That article states that "Governments and local authorities are using smart city technology, sensors and data to trace the contacts of people infected with the coronavirus. At the same time, smart cities are also helping in efforts to determine whether social distancing rules are being followed."

That article in *Forbes* also contains the following passage:

> *"...[T]he use of masses of connected sensors makes it clear that the coronavirus pandemic is–intentionally or not–****being used as a testbed for new surveillance technologies*** *that may threaten privacy and civil liberties. So aside from being a global health crisis,* ***the coronavirus has effectively become an experiment in how to monitor and control people at scale****."*

Another report in *The Guardian* states that "If one of the government takeaways

from coronavirus is that 'smart cities' including Songdo or Shenzhen are safer cities from a public health perspective, then we can expect greater efforts to digitally capture and record our behaviour in urban areas – and fiercer debates over the power such surveillance hands to corporations and states." There have also been reports that assert that typical cities are "woefully unprepared" to face pandemics compared to "smart cities."

Yet, beyond many of the NSCAI's specific concerns regarding mass AI adoption being conveniently resolved by the current crisis, there has also been a concerted effort to change the public's perception of AI in general. As previously mentioned, the NSCAI had pointed out last year that:

> ***"In the press and politics of America and Europe, Al is painted as something to be feared that is eroding privacy and stealing jobs. Conversely, China views it as both a tool for solving major macroeconomic challenges in order to sustain their economic miracle, and an opportunity to take technological leadership on the global stage."***

Now, less than a year later, the coronavirus crisis has helped spawn a slew of headlines in just the last few weeks that paint AI very differently, including "How Artificial Intelligence Can Help Fight Coronavirus," "How AI May Prevent the Next Coronavirus Outbreak," "AI Becomes an Ally in the Fight Against COVID-19," "Coronavirus: AI steps up in battle against COVID-19," and "Here's How AI Can Help Africa Fight the Coronavirus," among numerous others.

It is indeed striking how the coronavirus crisis has seemingly fulfilled the NSCAI's entire wishlist and removed many of the obstacles to the mass adoption of AI technologies in the United States. Like major crises of the past, the national security state appears to be using the chaos and fear to promote and implement initiatives that would be normally rejected by Americans and, if history is any indicator, these new changes will remain long after the coronavirus crisis fades from the news cycle. It is essential that these so-called "solutions" be recognized for what they are and that we consider what type of world they will end up creating – an authoritarian technocracy. We ignore the rapid advance of these NSCAI-promoted initiatives and the phasing out of so-called "legacy systems" (and with them, many long-cherished freedoms) at our own peril.

Question Everything, Come To Your Own Conclusions.

BECOME A PATRON